



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,327	02/17/2004	David M. Cral	P06683US00	1120

22885 7590 10/04/2005

MCKEE, VOORHEES & SEASE, P.L.C.
801 GRAND AVENUE
SUITE 3200
DES MOINES, IA 50309-2721

EXAMINER

SORKIN, DAVID L

ART UNIT	PAPER NUMBER
----------	--------------

1723

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,327

Applicant(s)

CRALL ET AL.

Examiner

David L. Sorkin

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Holley et al. (US 5,580,170). Regarding claim 1, Holley ('170) discloses an auger mixer comprising an elongated mixer housing (20) having first and second ends and defining a mixing chamber therein; a mixing auger (24) disposed in the mixing chamber and having a shaft (26), the shaft having a longitudinal axis extending from the first end to the second end of the housing; a power source (140) connected to the auger for rotating the auger about the longitudinal axis of the shaft; the mixer housing having a first end wall (132) adjacent the first end of the housing; a bearing assembly (130) mounting one end of the auger shaft to the first end wall of the housing for rotation relative to the first end wall about the shaft axis; a seal assembly (142) comprising a stationary seal (144 or 146) remaining stationary relative to the first end wall and a rotating seal (150) rotating about the shaft axis, the stationary seal and the rotating seal contacting one another to create a seal capable of preventing concrete mix from exiting the mixing chamber and moving toward the bearing assembly (see col. 5, lines 6-51; Fig. 14). Regarding claim 5, the stationary seal comprises a sealing surface and the rotating seal comprises a sealing surface frictionally engaging said sealing against the

Art Unit: 1723

sealing surface of the stationary seal (see Fig. 14; col. 6, lines 6-51). Regarding claim 13, Holley ('170) discloses a method for sealing a rotating auger shaft (26) relative to a first end wall (132) of a concrete auger mixer, the auger mixer having a mixing chamber (20) holding the shaft and containing a concrete mix, the method comprising, placing a seal assembly (142) between the first end wall and the rotating shaft, the seal assembly comprising a stationary seal (144 or 146) and a rotating seal (150); maintaining the stationary seal stationary with respect to the first end wall (see col. 6, lines 26-37), rotating the rotating seal about the rotating axis of the rotating auger shaft (see col. 6, lines 26-37; and frictionally contacting the stationary seal with the rotating seal to provide a sealing engagement there between for preventing mix from exiting the mixing chamber through the first end wall (see Fig. 14; col. 6, lines 6-51). Regarding claim 14, a stationary seal (144 or 146) has a circular stationary sealing surface which contacts a rotating seal (150) having a circular sealing surface.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 6-9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holley ('170) in view of Bedford (US 6,086,069). The apparatus and method Holley ('170) were discussed above. Holley ('170) does not disclose the specific seal required by dependent claims 2-4, 6-9 and 15. Bedford teaches a seal

Art Unit: 1723

having first fixed (70) and rotating (72) members made of resilient material which deform to urge the second fix (66) and rotating (68) metal members together. It would have been obvious to one of ordinary skill in the art to have utilized the seal of Bedford ('069) in place of that of Holley ('170) because Bedford ('069) explains that his seal member extends bearing life (see col. 1, lines 11-31).

5. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holley ('170) in view of Tschopp (US 6,270,247). Holley ('170) discloses a auger mixer comprising an elongated mixer housing (20) having a first end and a second end, the mixer housing defining a mixing chamber therein; a mixing auger (24) disposed in the mixing chamber and having a shaft (26), the shaft having a longitudinal axis extending from the first end to the second end of the housing; a power source (140) connected to the auger for rotating the auger about the longitudinal axis of the shaft; the mixer housing having a first end wall (132) adjacent the first end of the housing; a bearing assembly (130) mounting one end of the auger shaft to the first end wall of the housing for rotation relative to the first end wall about the shaft axis; a seal assembly (142) comprising a stationary seal (144 or 146) remaining stationary relative to the first end wall and a rotating seal (150) rotating about the shaft axis, the stationary seal and the rotating seal contacting one another to create a seal capable of preventing concrete mix from exiting the mixing chamber and moving toward the bearing assembly (see col. 5, lines 6-51; Fig. 14). As seen in Fig. 14, a plate attaching the bearing member to the first end wall, and corresponding securing members are also disclosed. However, a compressible plate between the bearing plate and the end wall is not disclosed.

Art Unit: 1723

Tschopp ('247) teaches placing a rubber compressible plate (24) between members of a mixer. It would have been obvious to one of ordinary skill in the art to have placed a rubber compressible plate between the bearing plate and wall of Holley ('170) to achieve the benefit of improved sealing explained in col. 4, lines 10-41 of Tschopp ('247).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/780,327

Page 6

Art Unit: 1723

A handwritten signature in cursive script, reading "David L. Sorkin".

David L. Sorkin
Primary Examiner
Art Unit 1723

DLS